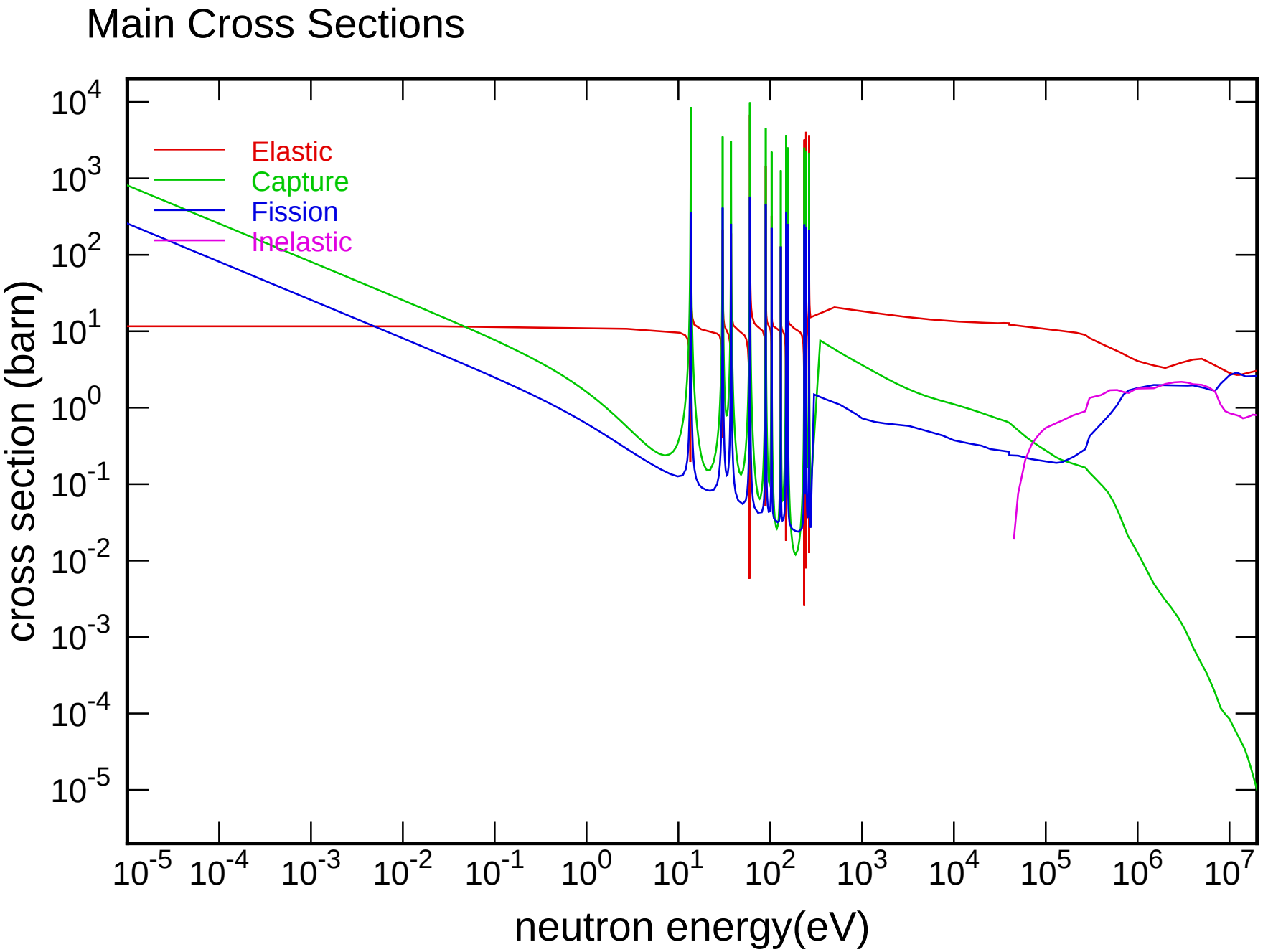
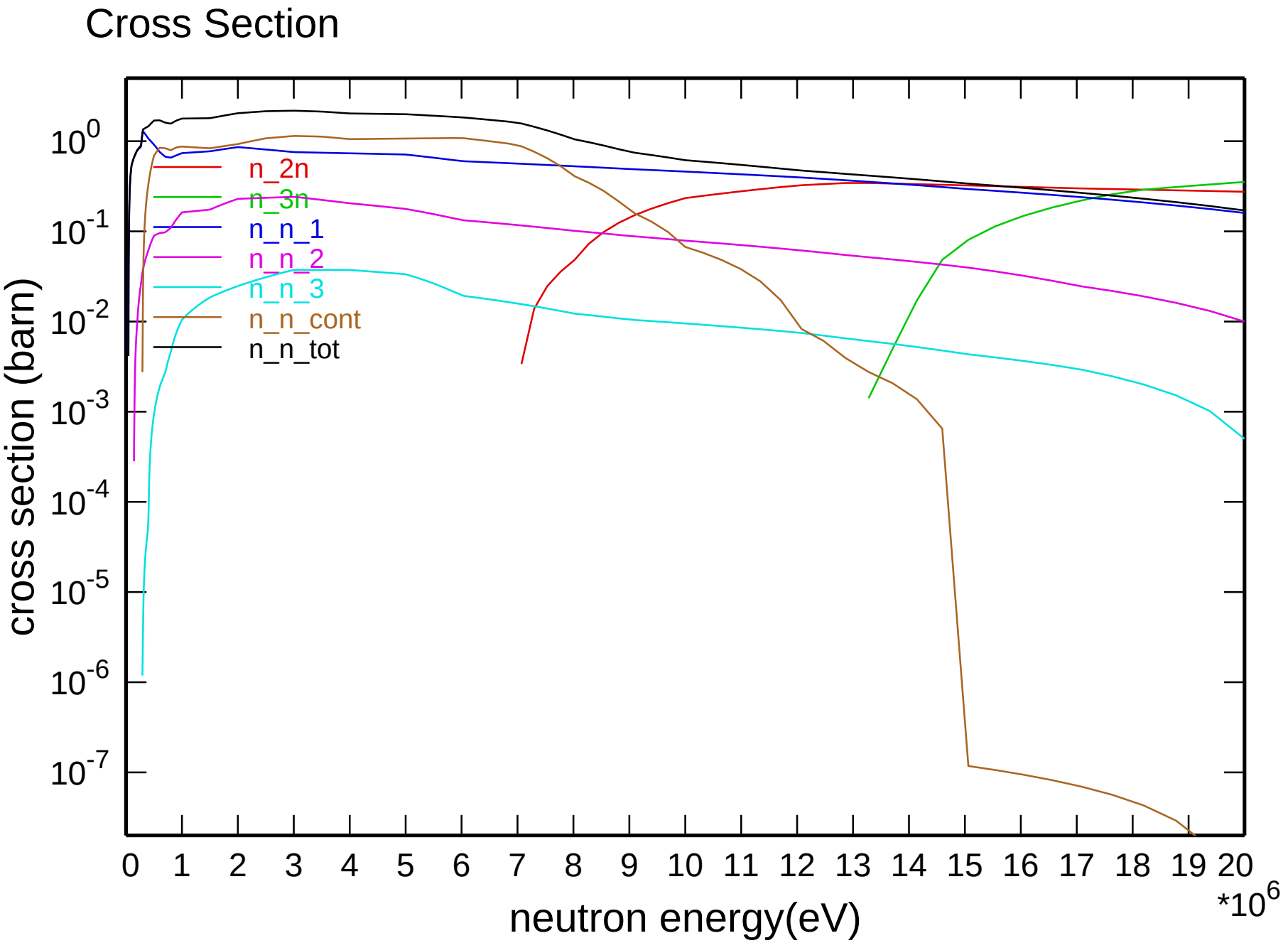
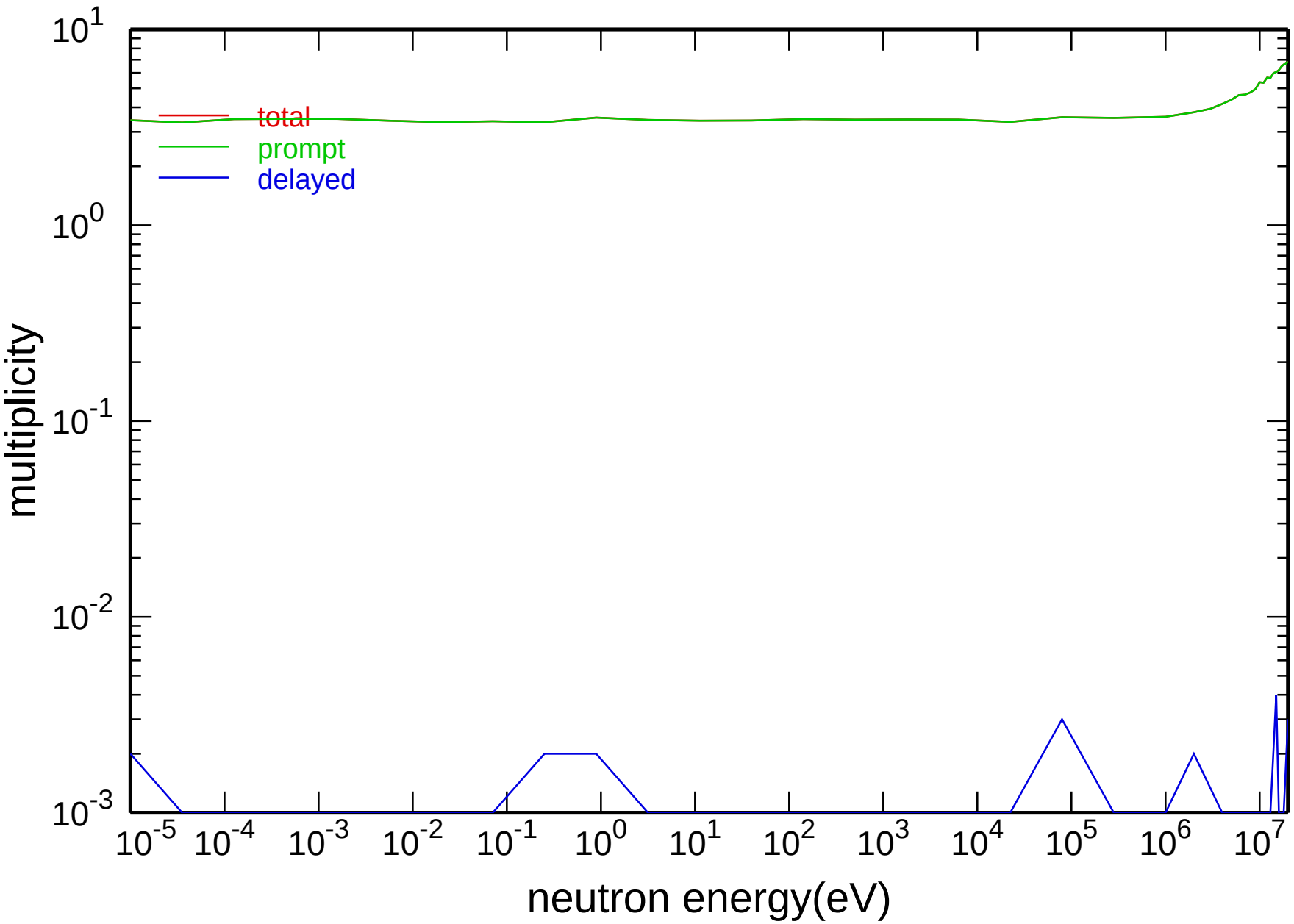
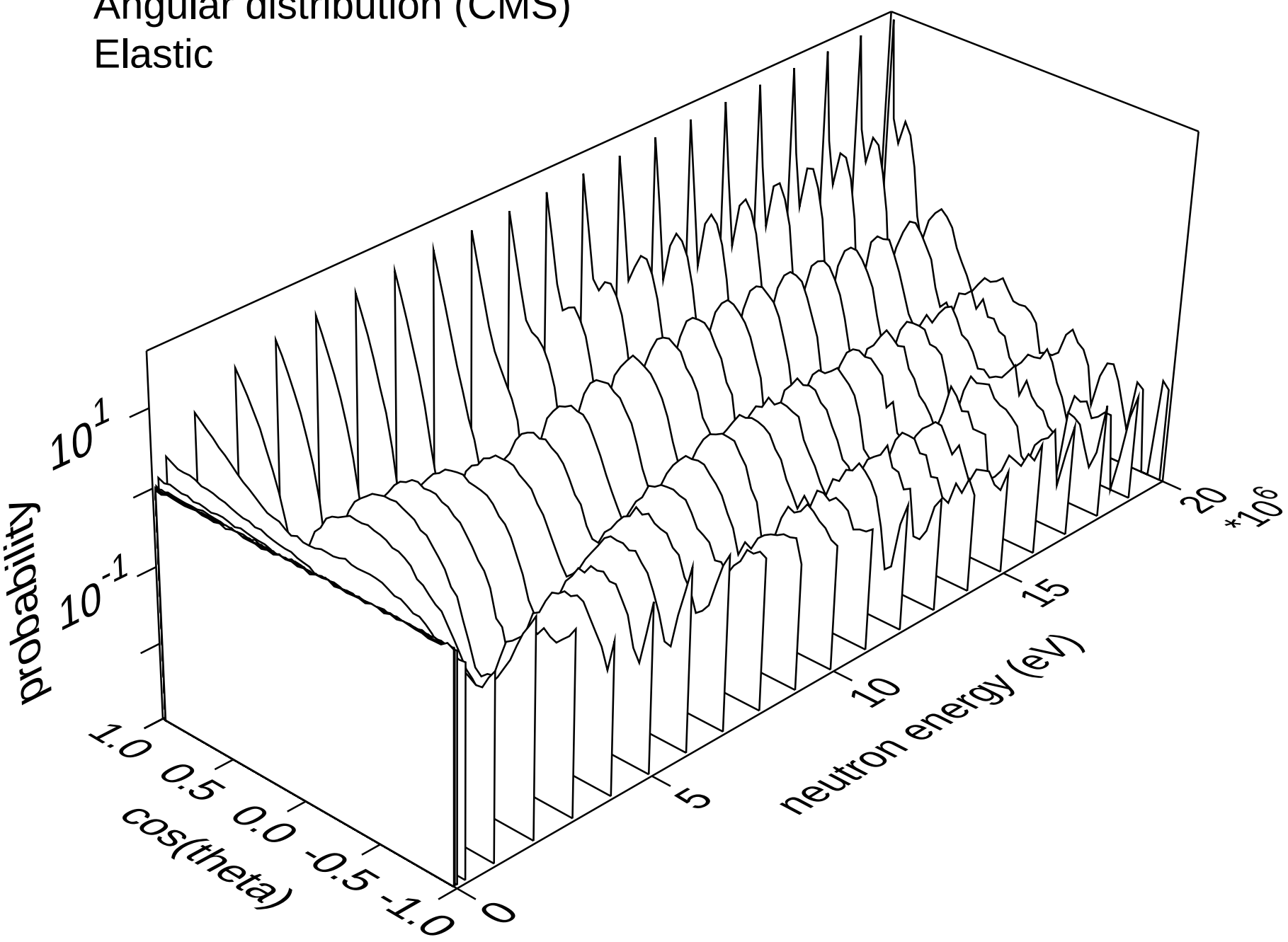
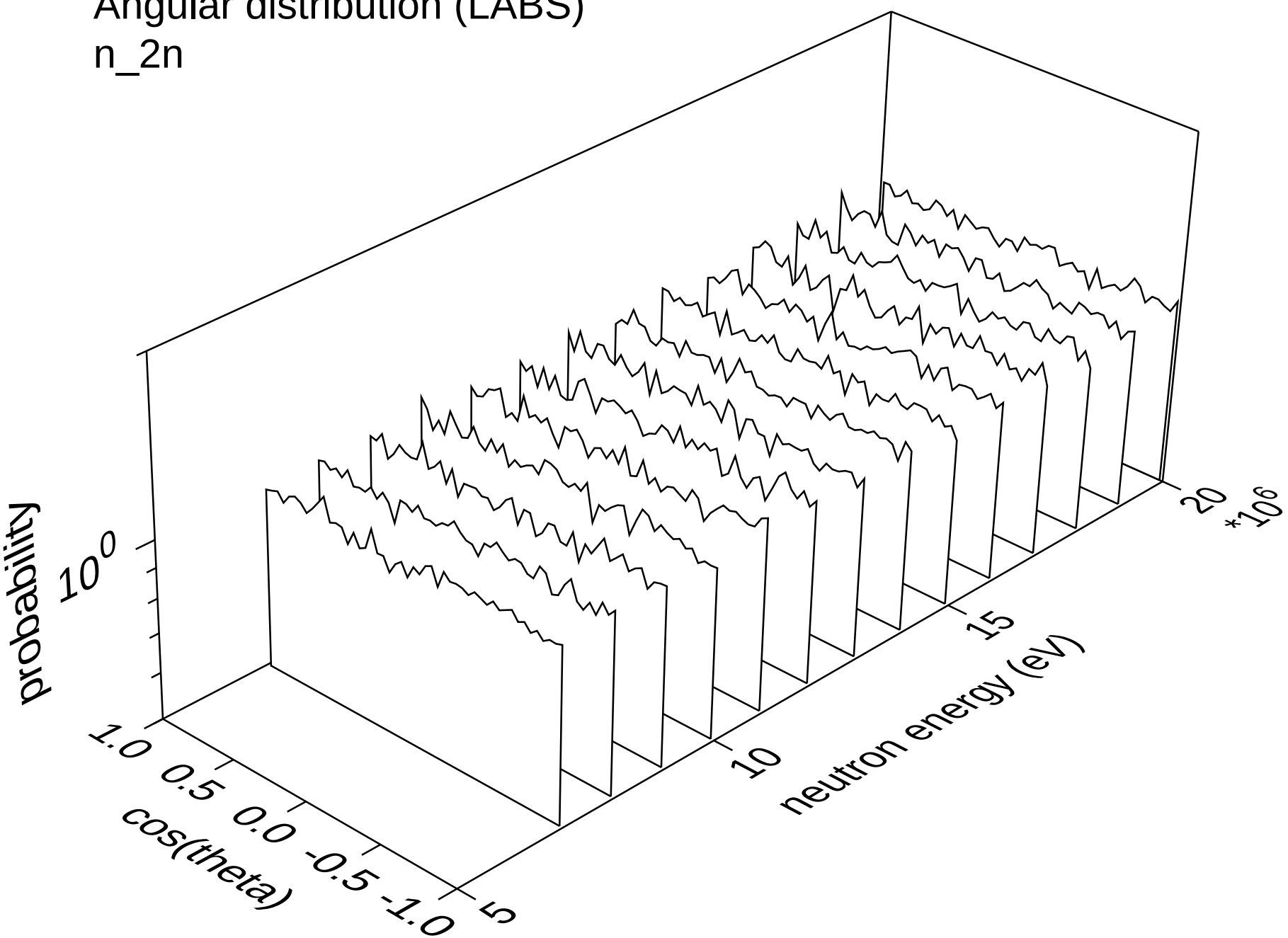
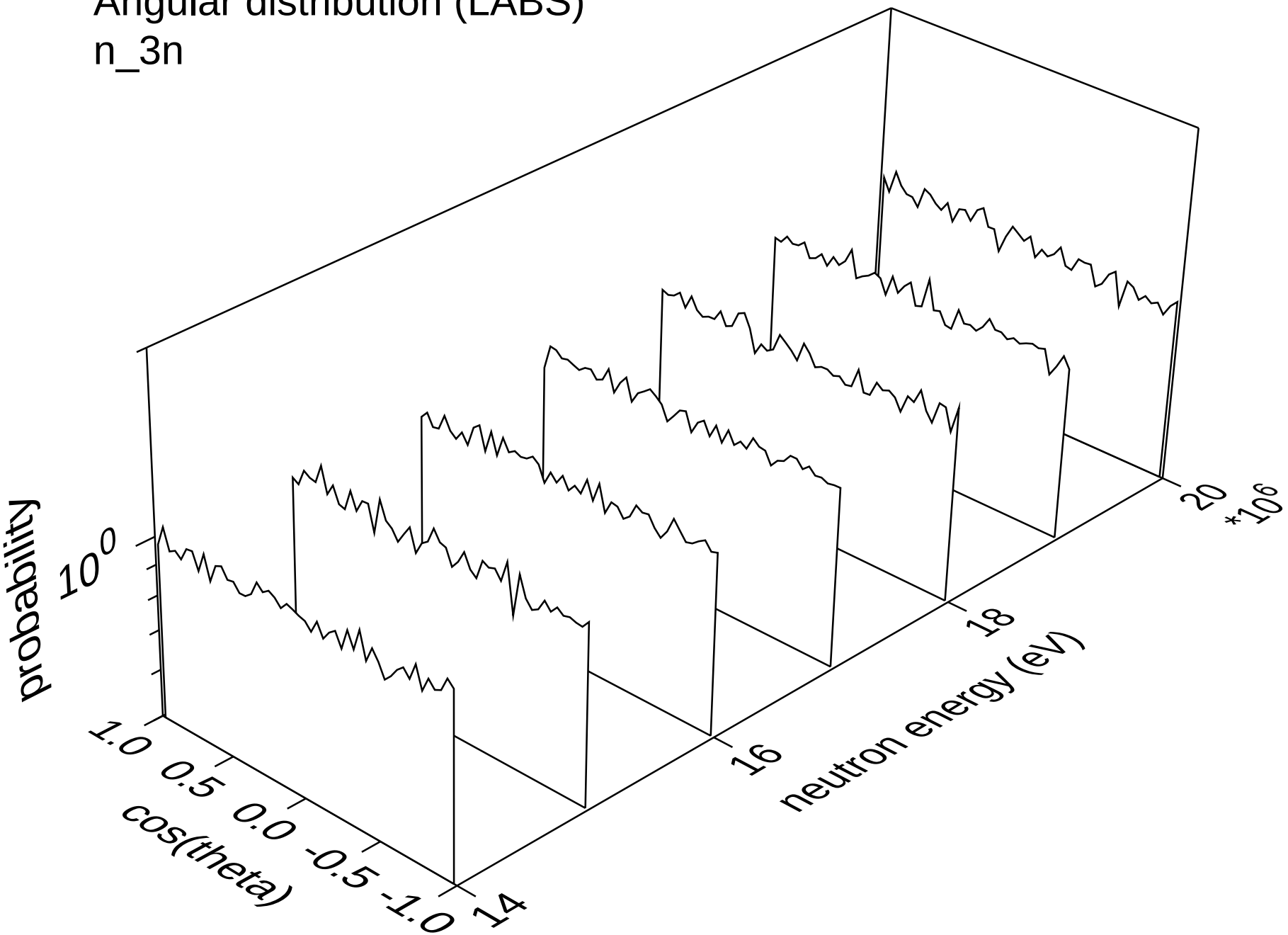

Main Cross Sections
Elastic
Capture
Fission
Inelastic
cross section (barn)
neutron energy(eV)
10^4
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7

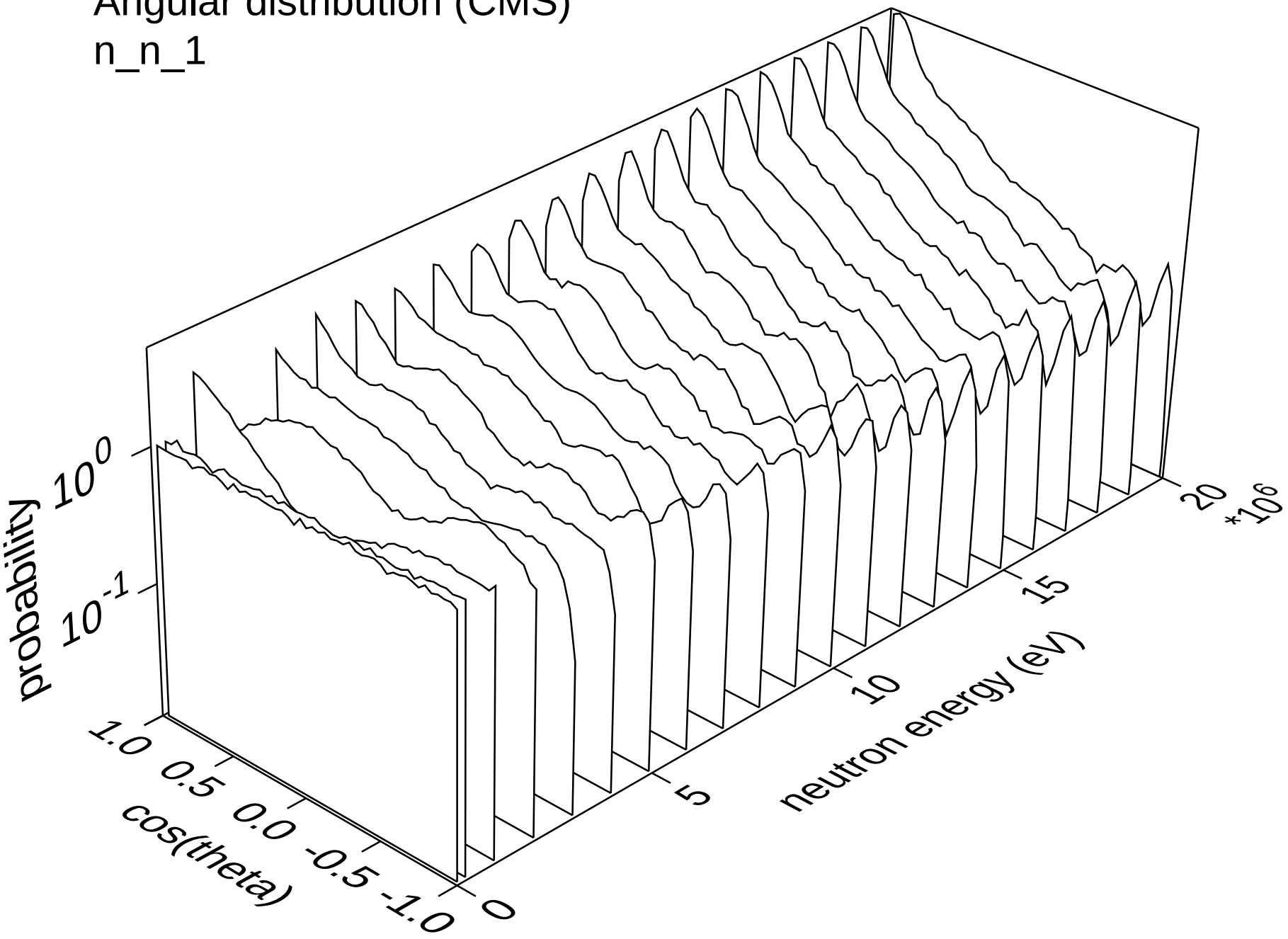

Cross Section
cross section (barn)
$10^{0}$
$10^{-1}$
$10^{-2}$
$10^{-3}$
$10^{-4}$
$10^{-5}$
$10^{-6}$
$10^{-7}$
n_2n
n_3n
n_n_1
n_n_2
n_n_3
n_n_cont
n_n_tot
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*$10^{6}$
neutron energy(eV)

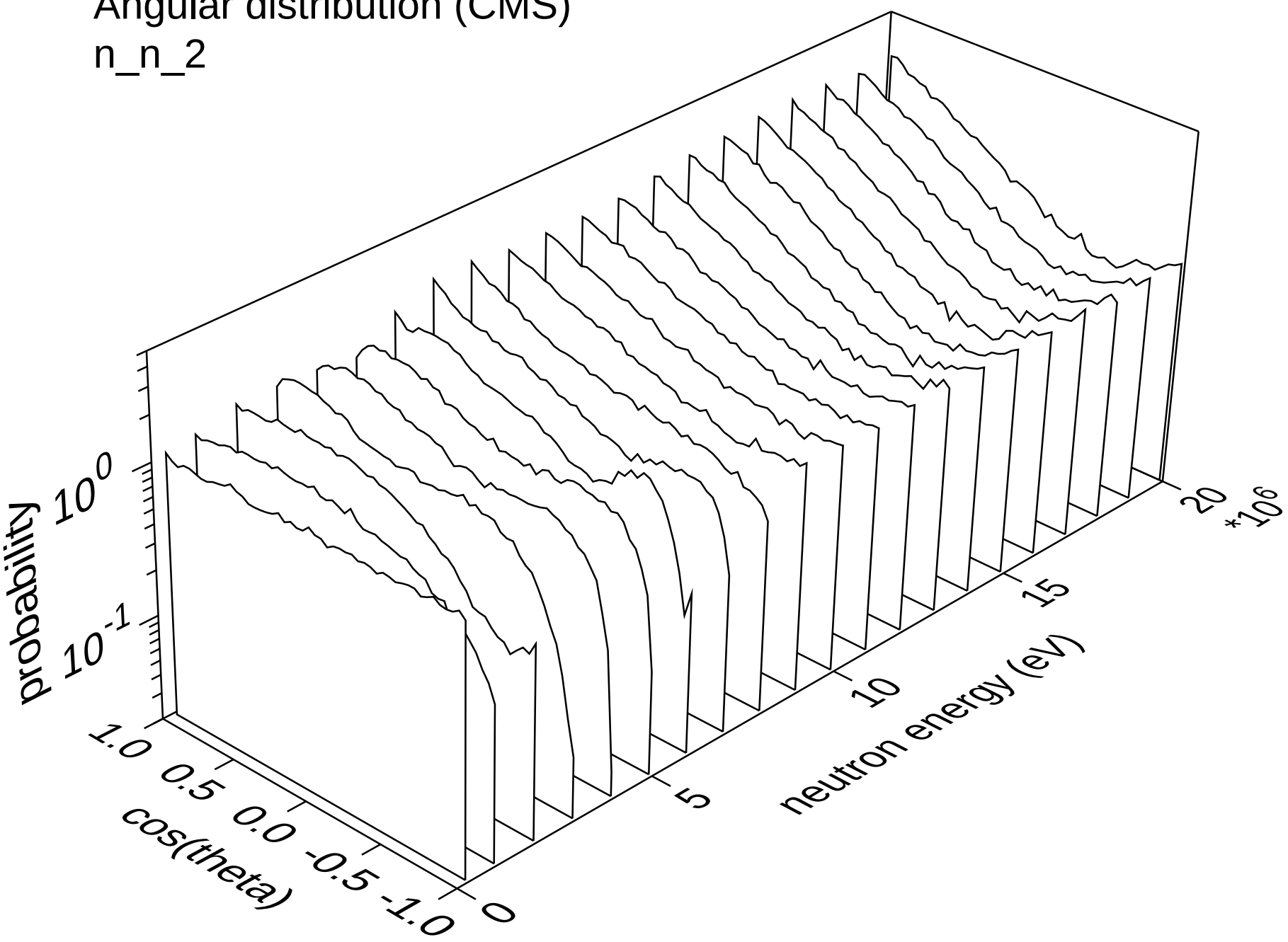

neutron multiplicity for fission
total
prompt
delayed
multiplicity
neutron energy(eV)
10^1
10^0
10^-1
10^-2
10^-3
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7

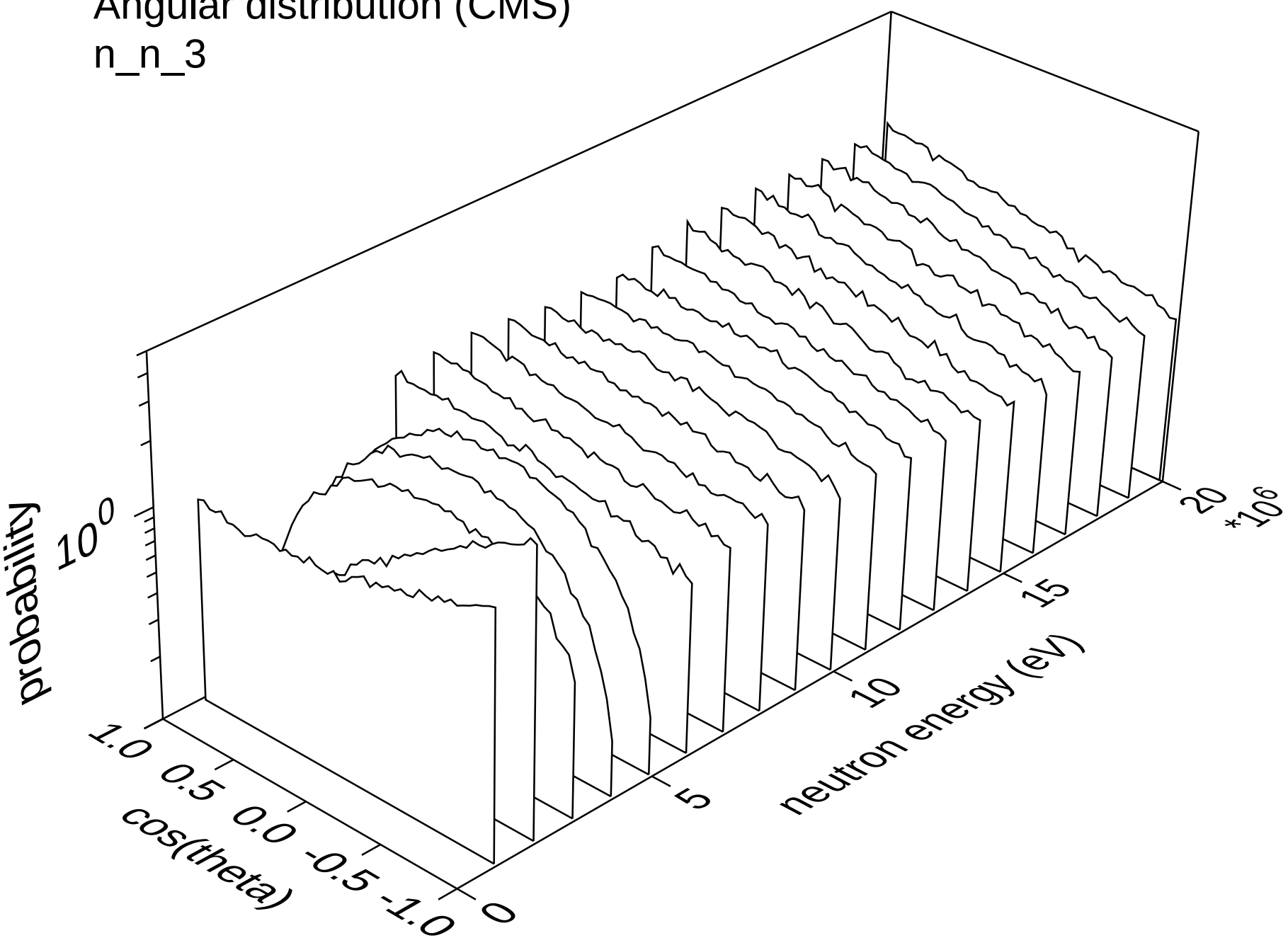

Angular distribution (CMS)
Elastic
probability
$10^{1}$
$10^{-1}$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

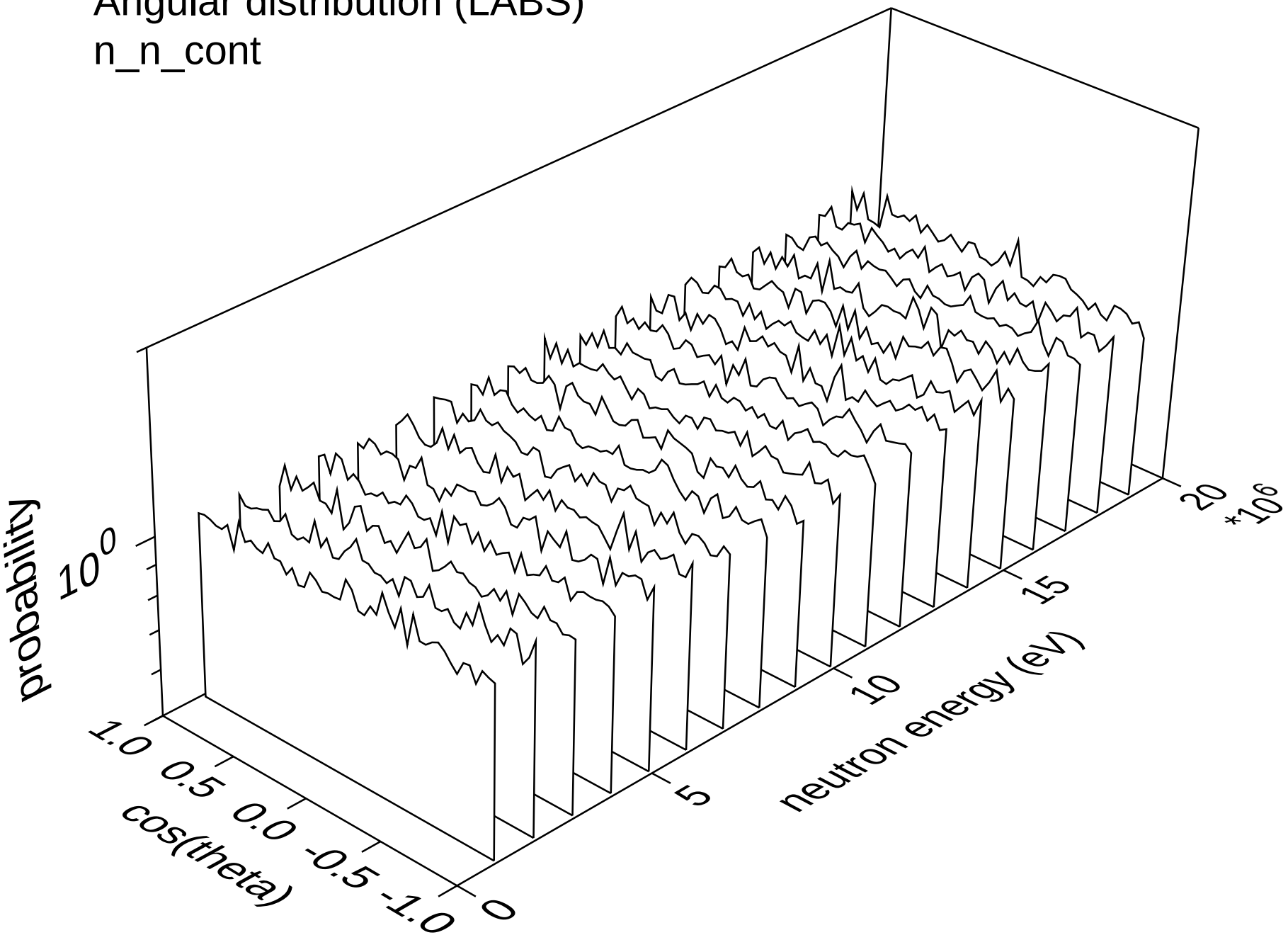

Angular distribution (LABS)
n_2n
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
5
10
15
20
*10^6
neutron energy (eV)

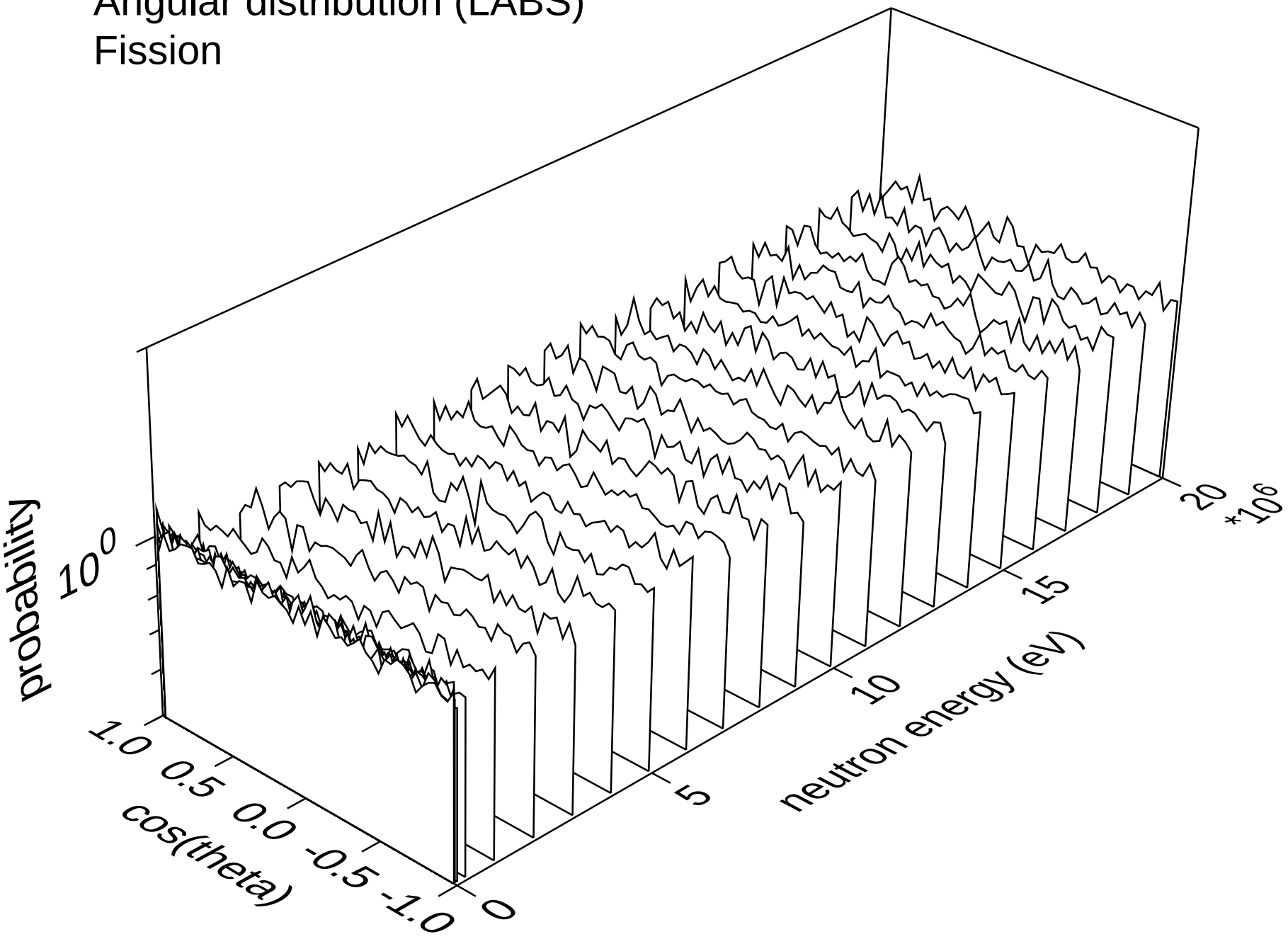

Angular distribution (LABS)
n_3n
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
14
16
18
20
*10^6
neutron energy (eV)

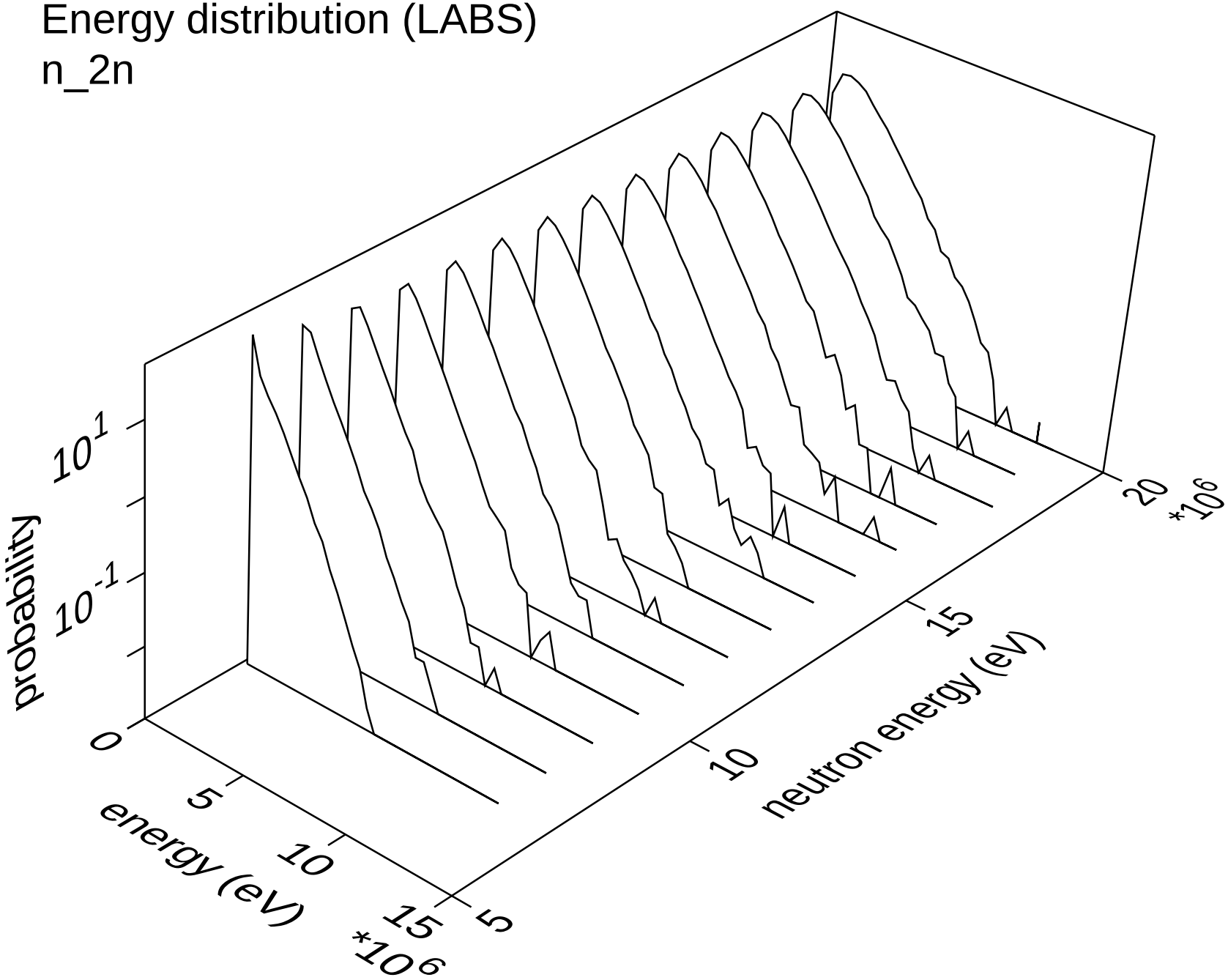

Angular distribution (CMS)
n_n_1
probability
$10^{0}$
$10^{-1}$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

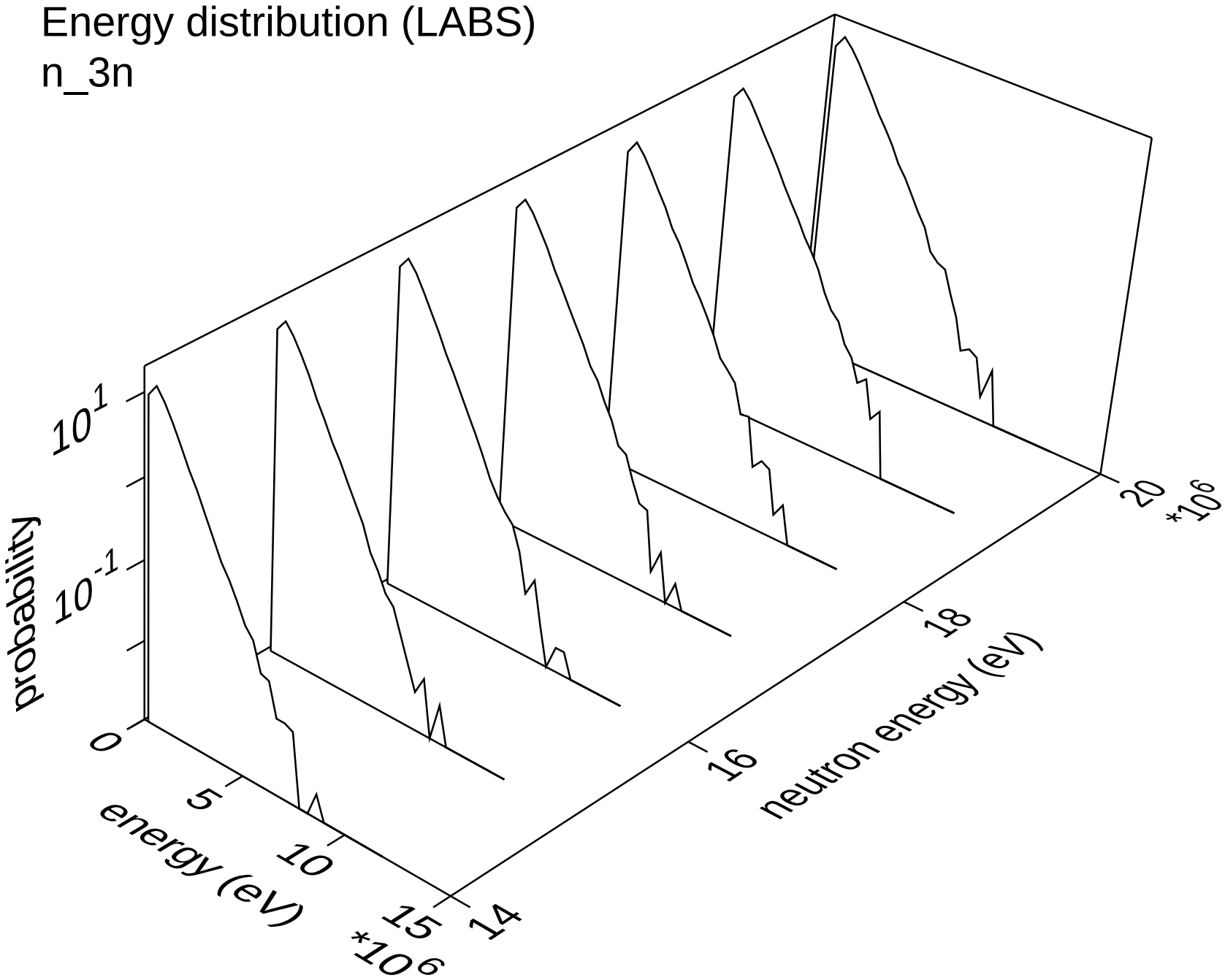

Angular distribution (CMS)
n_n_2
probability
$10^{0}$
$10^{-1}$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

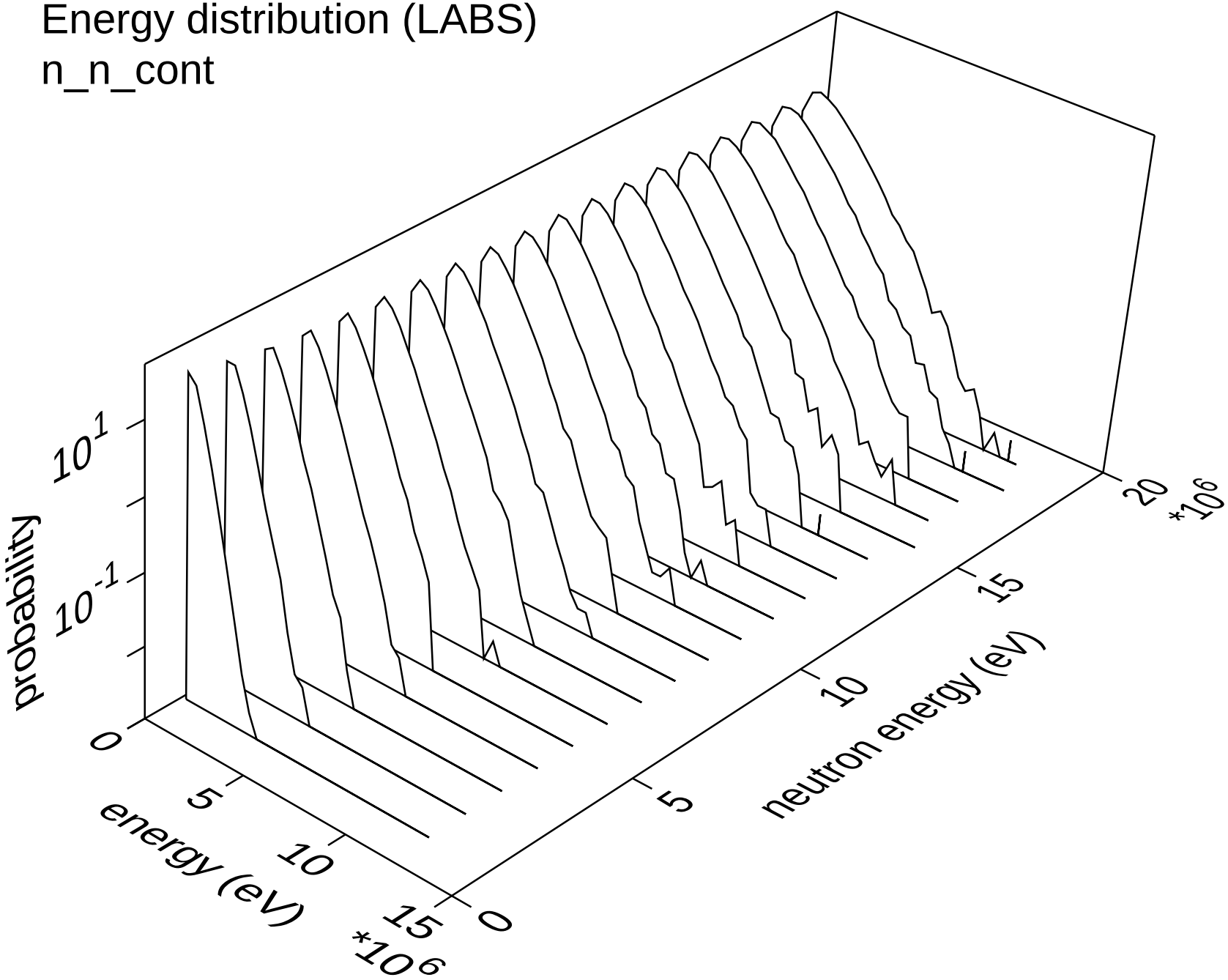

Angular distribution (CMS)
n_n_3
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

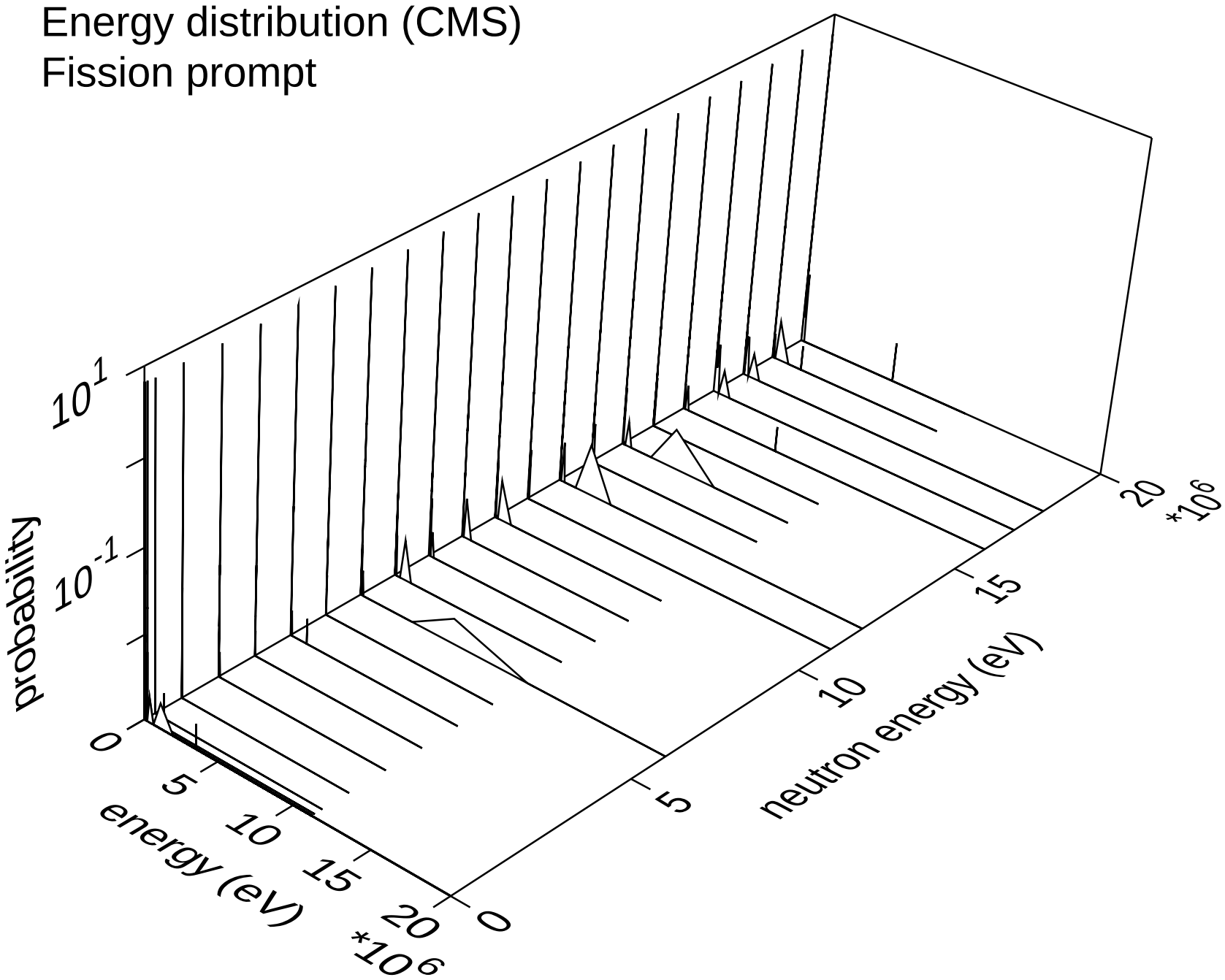

Angular distribution (LABS)
n_n_cont
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)


Angular distribution (LABS)
Fission
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

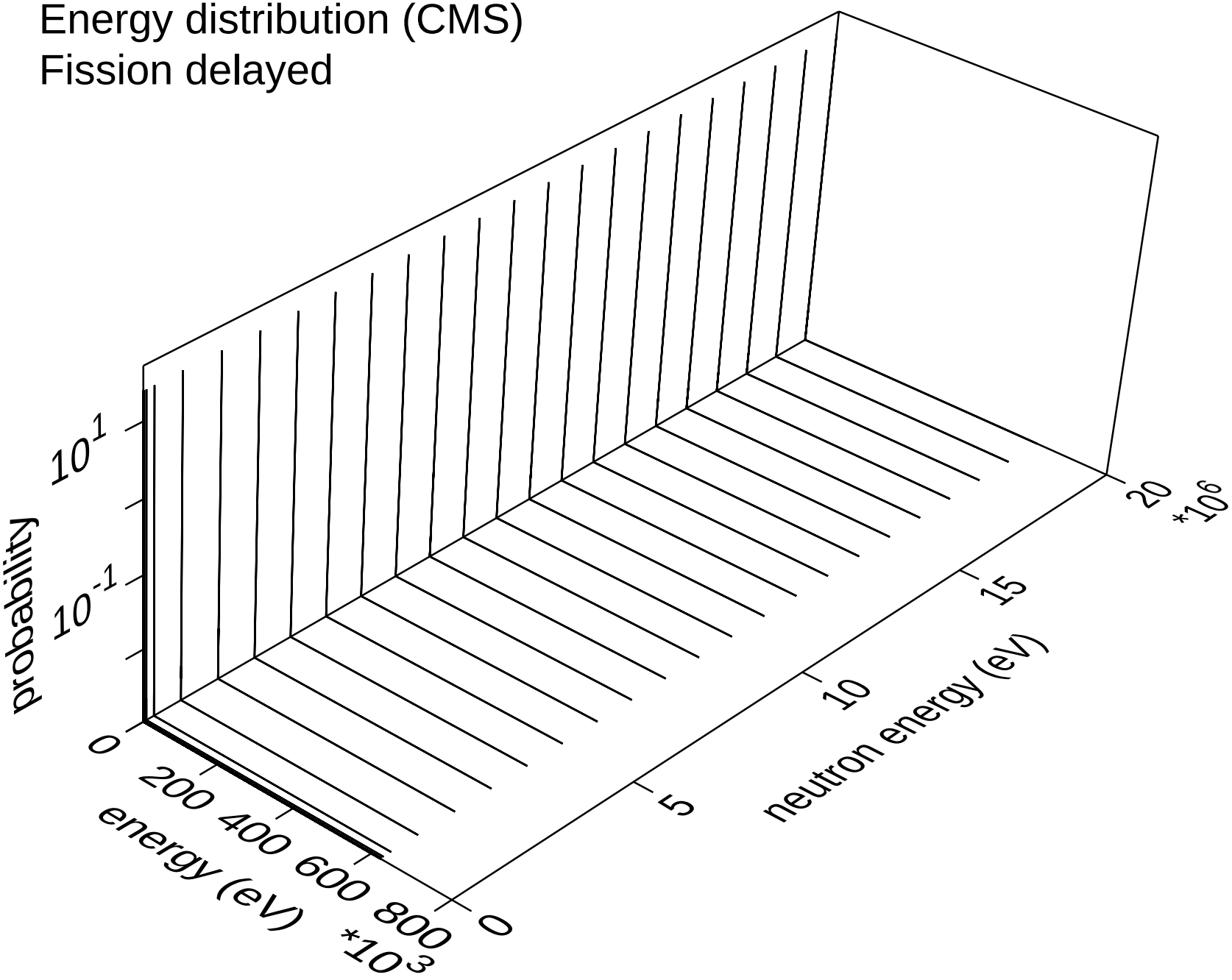

Energy distribution (LABS)
n_2n
probability
$10^{1}$
$10^{-1}$
0
5
10
15
energy (eV)
*10^6
5
10
15
20
neutron energy (eV)
*10^6

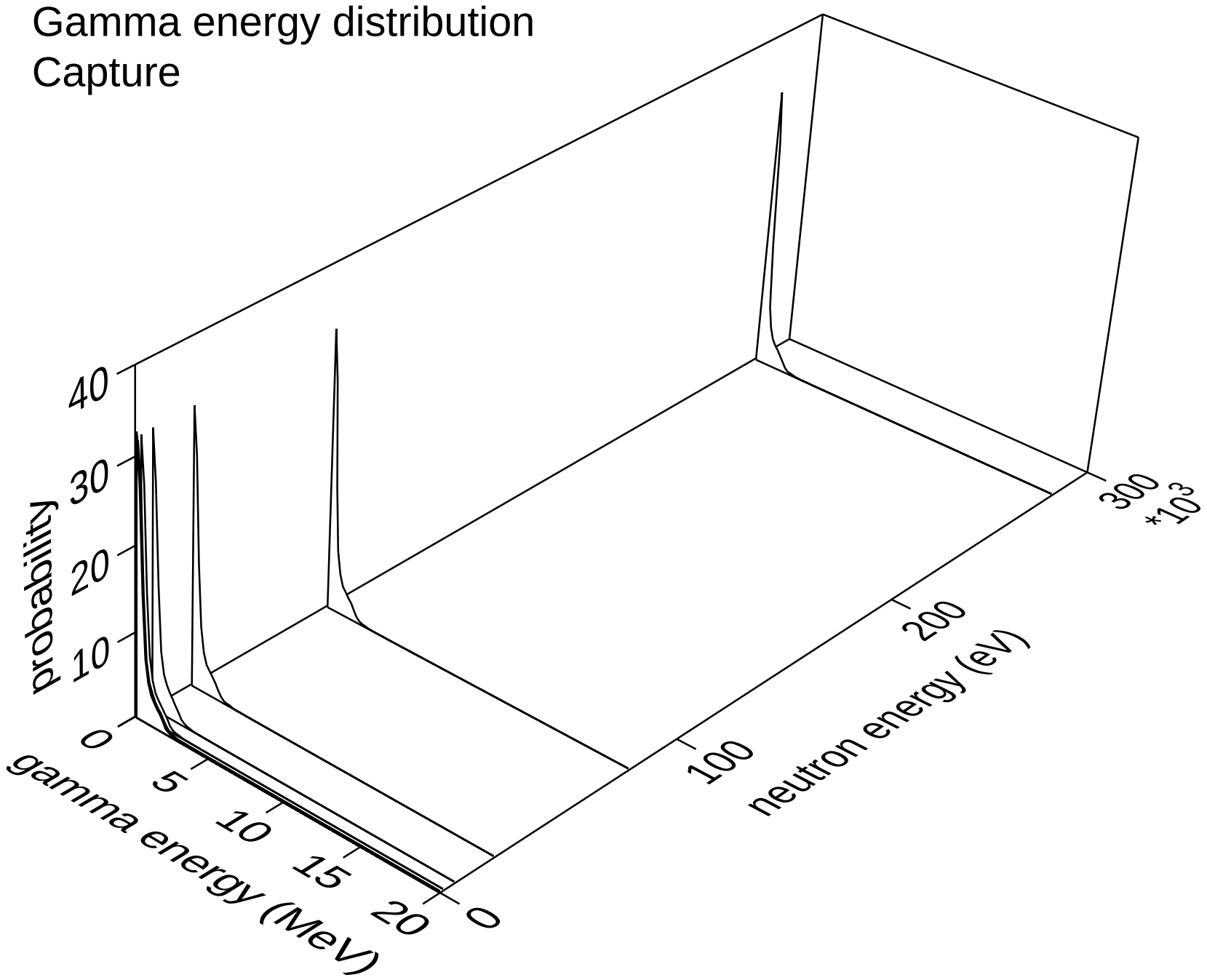

Energy distribution (LABS)
n_3n
probability
$10^{1}$
$10^{-1}$
0
energy (eV)
5
10
15
*10^6
14
16
18
20
*10^6
neutron energy (eV)

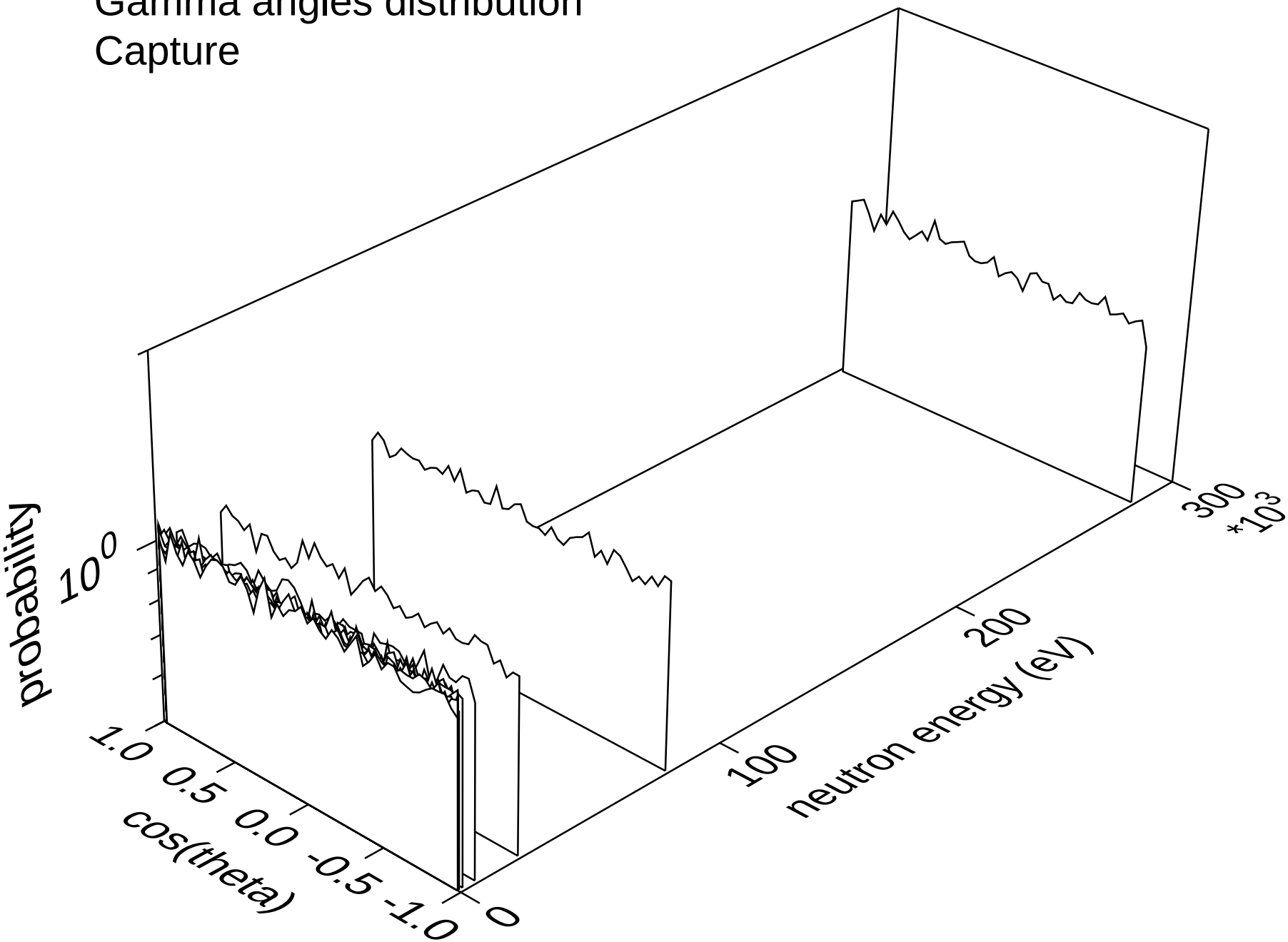

Energy distribution (LABS)
n_n_cont
probability
$10^{1}$
$10^{-1}$
0
5
10
15
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)


Energy distribution (CMS)
Fission prompt
probability
$10^{1}$
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

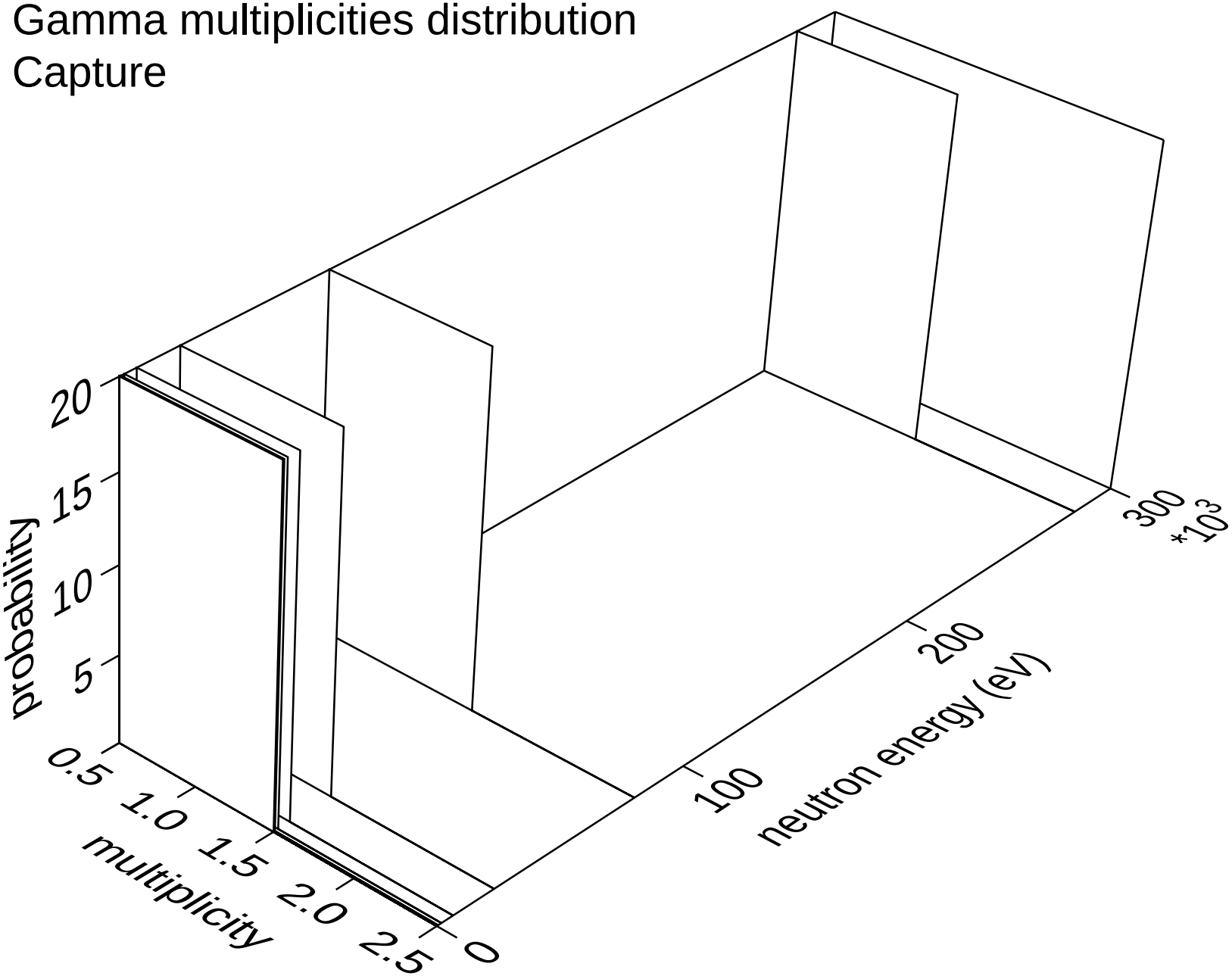
Energy distribution (CMS)
Fission delayed

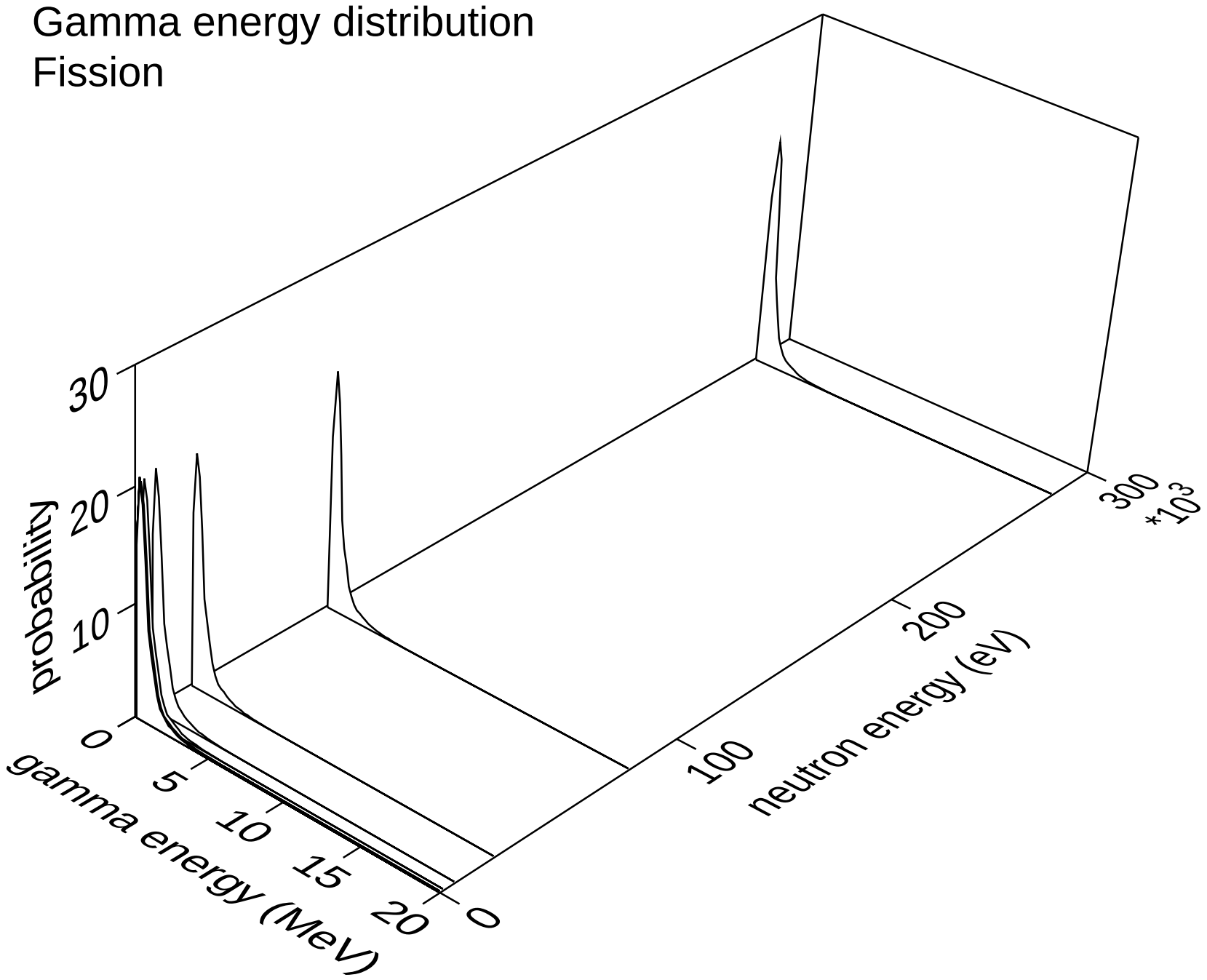


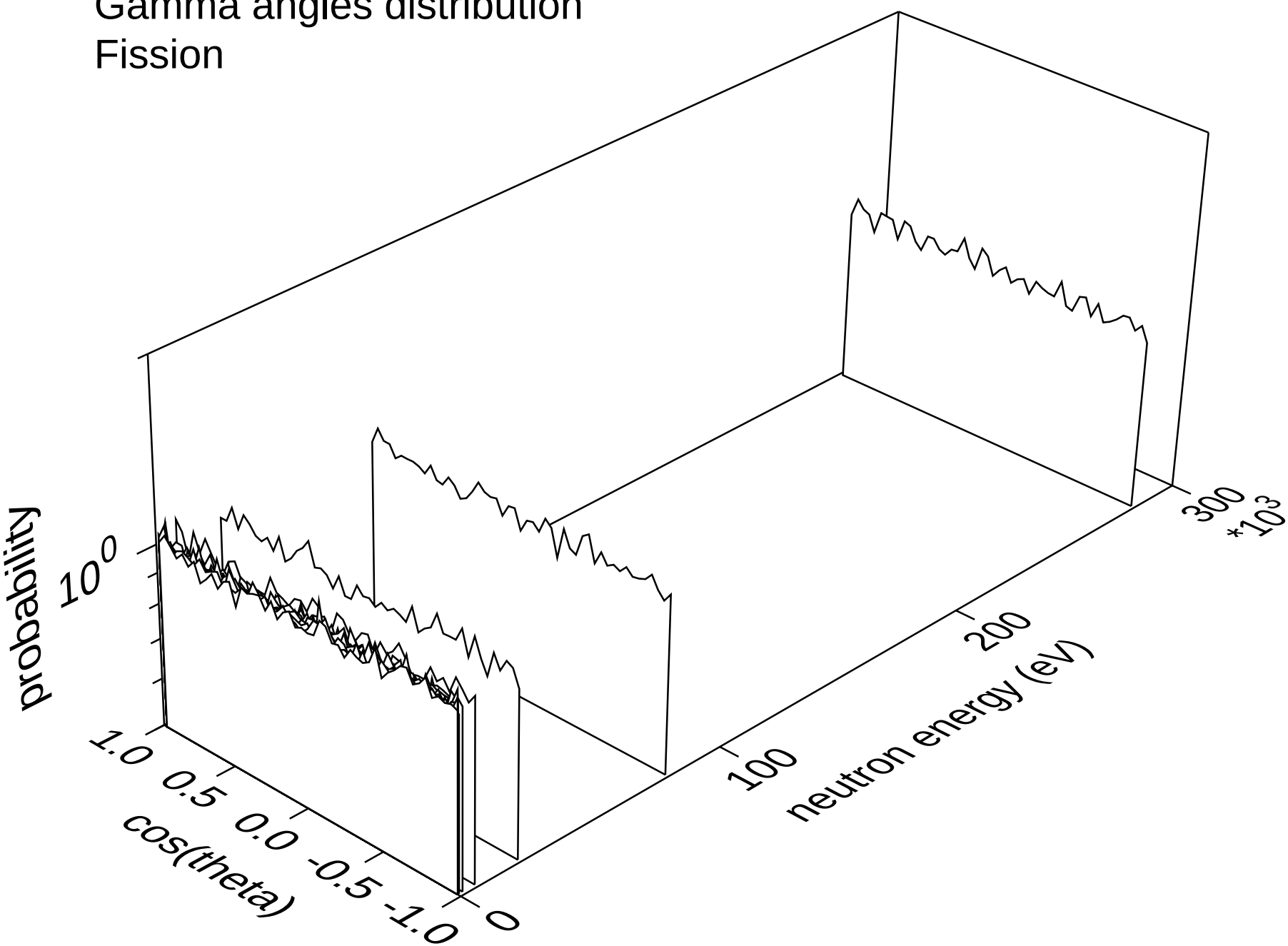
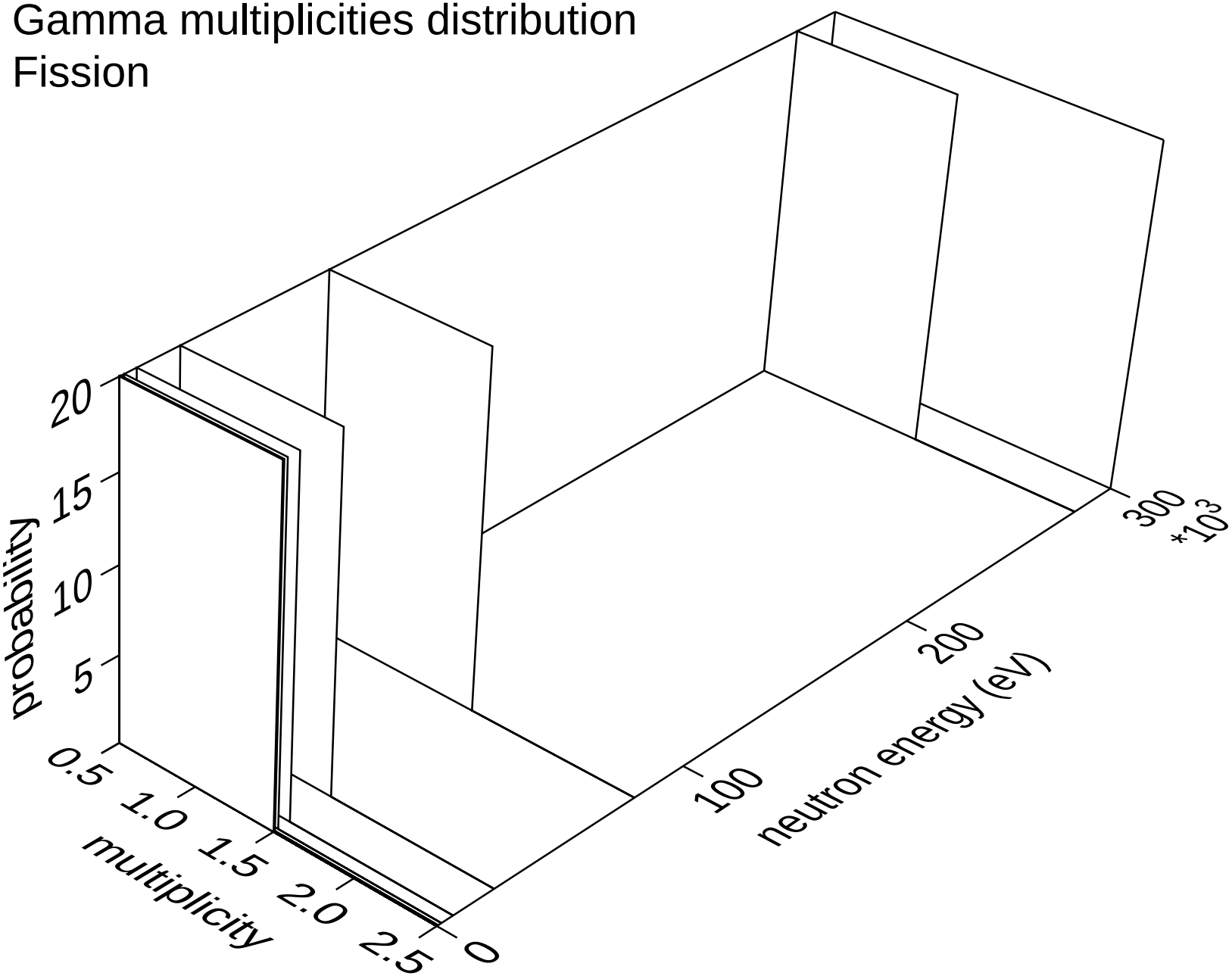

Gamma energy distribution
Capture
probability
40
30
20
10
0
gamma energy (MeV)
0
5
10
15
20
neutron energy (eV)
100
200
300
*10^3


Gamma angles distribution
Capture
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
100
200
300
neutron energy (eV)
*$10^3$

Gamma multiplicities distribution
Capture




Gamma energy distribution
Fission
probability
30
20
10
0
gamma energy (MeV)
0
5
10
15
20
neutron energy (eV)
100
200
300
*10^3


Gamma angles distribution
Fission
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
100
200
300
neutron energy (eV)
*$10^3$

Gamma multiplicities distribution
Fission